An example of an IN service is Toll Free Calling (800 and 888 number dialing). At an IN SSP, a call that is to a number that begins "800" is processed by toll free service logic in the switch. In order to determine how the call should be routed through the network, the service logic in the switch launches a query to the toll free database in an SCP. The query message contains the toll free number (800-NXX-XXXX). The SCP determines the routing information associated with the number it received in the query message. The routing information will be either a Carrier Identification Code (CIC), or a normal "routable" number. The SCP sends a response message which contains the routing information associated with the toll free number it received. When the SSP continues processing the call, it will use the received information to route the call to its final destination. As with all IN services, the service logic for toll free service resides in the switch. The SCP serves only as a database. Because the service logic exists in the SSP for IN services, the switch will reject any message it receives that contains parameters that are not part of the toll free service.

IN services are developed by vendors who respond to requirements written by (or for) Ameritech. Ameritech does not develop the service logic for IN services that reside in the SSP, or the database software that resides in an IN SCP. Ameritech only configures the software and populates parameters and tables. The operation of the IN service at the most basic level is controlled by the switch vendors who develop the service specific logic. For example, to support expansion of toll free dialing to the "888" prefix,

Ameritech had to request its switch vendors to modify their switch software to recognize "888" as a toll free prefix.

AIN introduced the concept of placing "triggers" within the normal call processing sequence of a switch. IN queries are launched as the result of service specific processing that is encountered by a call. A call encounters a "trigger" at a certain pre-defined place within the call processing sequence. AIN defines which places in the call processing sequence may contain triggers. These may include when a phone is lifted from its cradle, when a customer has completed dialing, when the switch is analyzing digits to select a route for the call, and when the called line has been selected by a switch. If certain conditions exist for a call when it encounters a "trigger", then the switch will transmit an AIN query message into the SS7 network. The information that will be included in the query is determined by parameters associated with the specific trigger. For example, a switch may be configured so that a trigger is placed within the analysis of dialed digits, such that a query to an SCP will be created whenever the first six digits of a ten digit number are "847-248". Some triggers are associated with an individual line (e.g., detecting that a customer has lifted her handset), and some triggers are associated with the entire switch (e.g., detecting when any customer has dialed a call to the 847-248 office code). An AIN trigger is not a physical entity. It is a set of software conditions within the call processing software.

When the SCP receives the query, it processes the message. Depending on the parameters present in the message, and the contents of those

parameters, the service logic in the SCP will determine how the processing of the individual call should proceed at the SSP. The service logic then creates a response message containing the proper parameters and values that should cause the switch to process the call as desired. When the response is received by the SSP, it uses the parameters and values received from the SCP to continue processing the call. The SSP has no knowledge about the details of the AIN service, it merely executes call processing using the parameters provided by the SCP. If the configuration of the trigger in the SSP, the message routing configurations in the SS7 network, and the service logic in the SCP have been designed correctly, the AIN service should function as designed.

Associated with the AIN SCP is a Service Creation Environment (SCE) and Service Management System (SMS). The SCE and SMS allows Ameritech to design and manage the service logic and data that are loaded into an SCP for an AIN service. The switch and SCP vendors provide logical capabilities which Ameritech uses to create each AIN service. The switch and SCP vendors may have no knowledge of the specific AIN services that Ameritech has created.

AIN and IN differ primarily in two ways. The first way is the location of the service logic within the network. For IN services, the service logic resides in the SSP, while for AIN services the service logic resides within the SCP. The second way AIN and IN services differ is in the control of the

service logic. For IN services, the service logic is designed by the switch vendors. For AIN services, Ameritech uses the predefined structures provided by the vendors to create service logic for the SCP.

Direct, unmediated access to AIN triggers as defined by AT&T is not technically feasible at this time. AIN was not designed with network interconnection in mind, and direct access would place Ameritech's network, customers, and other service providers at risk.

ATTACHMENT 2

Sandra L. Wagner
Director -
Federal Regulatory

SBC Communications Inc.
1401 I Street, N.W.
Suite 1100
Washington, D.C. 20005
Phone 202 326-8860

EX PARTE OR LATE FILED

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MAY 28 1996

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

May 28, 1996

Ex Parte

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

Re: Ex Parte, CC Docket No. 91-346, Intelligent Network

Dear Mr. Caton:

In accordance with the Commission's rule governing ex parte presentations, please associate this letter with the above-referenced proceeding.

A duplicate copy is provided to confirm receipt. If you should have any questions, please give me a call.

Sincerely,

Attachment

Washington, D.C. 20005
Phone 202 326-8860

SBC

May 28, 1996

RECEIVED

MAY 28 1996

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Ms. Regina Keeney
Chief, Common Carrier Bureau
Federal Communications Commission
1919 M Street, N.W., Room 500
Washington, D.C. 20554

Re: Ex Parte, CC Docket No. 91-346, Intelligent Network

Dear Ms. Keeney:

The purpose of this letter is to respond to the ex parte filed by AT&T in this proceeding dated April 10, 1996, wherein AT&T attempted to address concerns raised by several of the companies that comprise the Joint LECs[1] concerning AT&T's Phase II proposal for unmediated access to the LEC's intelligent network.[2]

AT&T, as delineated in the attached matrix, has generally mischaracterized the intent of the Joint LECs concerning many of the mediation issues cited in the earlier filings concerning AT&T's Phase II plan. The Joint LECs are not swayed by AT&T's generally unsupported assertions concerning the potency of its proposal for certification and testing as a replacement for real-time, call-by-call mediation techniques. The Joint LECs remain convinced that the best means to move forward toward early deployment of mediated open access to the LEC's IN is through cooperative industry lab tests and field trials as defined within the context of the *LEC Proposal for an Industry IN Project*.[3] The Joint LECs do not believe that AT&T's Phase II plan is workable, even as an interim step, due primarily to the network and service integrity, reliability and service assurance concerns outlined in the attachments to this letter.

AT&T would have the Commission believe that creation of IN services is a straightforward matter and that the LECs are deliberately withholding access. AIN service creation is not as simple as AT&T suggests, and that the difficulties of

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[1] See GTE Ex Parte dated September 15, 1995, Bell Atlantic Ex Parte dated October 27, 1995, SBC Ex Parte dated January 11, 1996, as modified on January 17, 1996, and Pacific Bell Ex Parte dated May 10, 1996.

[2] See, for example, AT&T's Ex Parte presentations dated August 21, 1995, February 29, 1996, and March 13, 1996.

[3] Joint filing by several Tier 1 LEC dated June 23, 1995, in CC Docket 91-346.

resolving the issues of switch vendor implementation differences and feature interactions are significant and have impeded the deployment of AIN based services. The LECs are suggesting use of caution and restraint in opening access to this technology in large part based on their own experience with the difficulties in implementing services within their own networks.

The Joint LECs encourage the Commission to eliminate uncertainty about potential outcomes of this proceeding and assist the industry in moving forward to resolve technical and other issues surrounding third party access to IN. Only through cooperative industry testing in a lab environment followed by technical trials will viable solutions emerge. Trialing individual proposals using live customer traffic with virtually no mediation as proposed by AT&T can only result in adverse consequences for network providers and the customers they serve.

If you have any questions or would like to discuss these points further, please contact me on 202-326-8860.

Sandra L. Wagner

Attachment

CC: Richard Metzger
Richard Welch
John Nakahata
Jim Casserly
Pete Belvin
Dan Gonzalez

Page 1, GTE's Identified Harm No. 1

GTE's Statement:

"AT&T's proposal also ignores consumer impacts that could result from introducing IN services that have the potential to conflict with existing switch-based services."

AT&T's Characterization of GTE's Statement:

"Trigger interaction conflicts are prevented by end office provisioning...Joint certification testing efforts between the LECs and the third party IN service providers will be important to identify feature interactions, just as it is in the LEC-only IN environment.

An example of an allowable IN based feature..Calling Party Number and the Dialed Address Digits to the nearest store location.

Now suppose Subscriber B (SNR subscriber) also has the Call Waiting Terminating (CWT) feature (CWT uses a tone to inform a busy station user that another call is waiting) and a TAT trigger assigned (as a result of the SNR service). A line associated with a TAT trigger can have CWT assigned. For calls terminating on this line, the SCP is queried before the CWT feature activation takes place. If the SCP returns the route to the same line and this line is busy, a call waiting tone is provided if the line is found to be busy.

Any negative feature interactions which may occur apply equally to the LEC. For example, automatic callback/recall is disabled when an IN trigger is encountered.

GTE's Response:

Continued on next page

AT&T uses GTE's statement out of context. GTE indicated that management of these feature interactions will require changes to existing business processes and systems. GTE further stated that this is already a difficult task for the LEC and is even further complicated when third party access is factored in. An investigation into actual services offered by LECs shows that mass market type services are just beginning to be introduced. Most services currently in the market are customized for business applications.

GTE is only beginning to define the processes and systems requirements necessary to manage these interactions. Much work remains! These systems must also be capable of identifying the switch technology serving the subscriber and the generic switch release. AIN and switch based feature interactions vary by switch type and switch generic release. A system that manages and recognizes these interactions must be developed. These systems do not yet exist. AT&T's comment that "joint certification testing efforts between the LEC and third party.." will solve this problem is incorrect. These interactions must be mapped and integrated into the front end ordering systems to minimize customer confusion and problems.

AT&T's example where Automatic Callback and Automatic Recall is disabled when an IN trigger is encountered is not an accurate statement. Interactions with these features is dependent upon which IN trigger is encountered. These features are supposed to operate properly at a TAT trigger.

Page 1. GTE's Identified Harm No. 2

GTE's Statement:

Consumers will be required to choose between subscribing to a new IN service or maintaining their existing switch-based services.

AT&T's Characterization of GTE's Statement:

"IN features can interact with switch-based. It is within the control of the service provider(s) to create offerings which do not allow conflicting services, where service providers wish to offer both IN and switch-based services to customers. Any interactions would be identified and resolved through joint testing efforts before the service is offered to the public. To minimize interaction possibilities using the testing efforts before the services is offered to the public. To minimize interaction possibilities using the current IN implementation, the preferred case is to have a single SCP provider per line for all triggers. For example, call waiting as a switch-based feature may not function in the presence of IN-based features, however automatic recall as a switch based feature may not function in the presence of IN based features.

IN call processing..upon the progression of the call state model (i.e., OFF-hook immediate. Off-Hook Delay, feature Code Dialing, 3/6/10, N11, TAT) and whether originating or terminating features are subscribed. Refer to Table 1 for trigger assignments.

While there may be some cases where users may have to choose between IN and switch-based features, it is within the control of the service provider, through joint efforts with the LEC, to identify, test and certify these cases prior to service introduction. Indeed, customers may have to choose between IN based and switch-based services during customer provisioning, just as they do when offered conflicting services by the LEC."

GTE's Response:

Continued on next page

As stated in GTE's response to Identified Harm # 1, the business processes and support systems including the front end ordering/provisioning systems are not currently capable of managing feature interactions on a mechanized basis. GTE believes that third party input requirements are necessary before final solutions are implemented. These requirements and input are anticipated via the Industry IN Project proposed to the FCC.

AT&T again indicates that interaction issues will be identified and resolved through joint testing efforts. In order for these interactions to be tested, identified and resolved, GTE will require detailed knowledge of AT&T's service. AT&T has opposed mediated access to SMS as a viable solution to allow third party access to LEC AIN capabilities. Their argument under this interface arrangement is that they are required to provide LECs their service descriptions which would allow the LECs to use their ideas against them via competing services. GTE has encouraged this type of arrangement as a means to minimize feature interaction issues prior to having tools in place to manage them on a real time basis and allow third parties to enter the market as soon as possible. GTE's motive is not to steal AT&T's service ideas.

AT&T's statement that "to minimize interaction possibilities using the current IN implementation, the preferred case is to have a single SCP provider per line for all triggers" misrepresents feature interaction issues and limits subscribers ability to purchase IN services from multiple IN service providers. If a customer subscribing to IN provider A for an originating type service calls a second subscriber who subscribes to IN provider B for a terminating type service AT&T's single provider interaction argument becomes flawed. Just because only one IN service provider has access to all triggers for a given subscribers line, feature interactions are not minimized.

Page 2, GTE's Identified Harm No. 3
GTE's Statement:
AT&T's claim that direct access to triggers can occur today without mediation is seriously flawed. AT&T claims that mediation functions already exist in the network to ensure network reliability and integrity. GTE agrees that the following mediation functions are contained in Gateway STPs: origination & terminating point codes, routing functions such as GTT based on TT, subsystem # assignments and allowed Calling Party Address & Called Party Address.
AT&T's Characterization of GTE's Statement:
"Basic screening..message routing are: - Originating Point Code (OPC) and Destination Point Code (DPC) - SCCP Calling Party Address and Called Party Address - TT and GTA At each level of...announcement treatment. Under this scenario, ...SCP provider, other service providers in the same NPA-NXX cannot be impaired."
GTE's Response:
Continued on next page

GTE agrees with AT&T's description of how SS7 TCAP messages are routed. Unfortunately, AT&T has misrepresented GTE's comment. The basis screening and routing functions performed today will only validate that the third party is authorized to send and receive TCAP messages for authorized messages or parameters.

The basis SS7 message structure that transmits TCAP messages required for IN contains three components. The first component is called the Message Transfer Part (MTP) which includes the Signaling Point Code (SPC) of the message originator and the SPC of the destination that will perform processing on the message. In the case of Global Title Translation (GTT) as described by AT&T, the destination is the SPC of the STP that will perform the GTT. The second component is called the Signaling Connection Control Part (SCCP). The SCCP contains the information necessary to support GTT. For SSP originated IN queries, the SCCP contains the Translation Type (TT) and Global Title Address (GTA) necessary to perform the GTT at the STP. For messages returned to the SSP from the SCP, it contains the SPC and the Subsystem Number (SSN) of the SSP originating the query. The third component is the actual Transaction Capability Applications Part (TCAP) which transmits the IN information between the SSP and SCP. The basic SS7/STP screening and routing functions identified by AT&T do not look at the contents of the TCAP component of the message. GTE's original comments addressed the need to screen the contents of the TCAP message because this is where most of the undesirable interactions will occur. A new form of mediation is required to screen the coments of the TCAP message for all allowed operations.

The basic SS7 protocol only supports a maximum of 256 TT values. Since there is a limited quantity of values available, care must be taken as to how these are utilized. Some of these values have already been assigned for SS7 applications such as Calling Card Validation, 800 Database , Calling Name Delivery, Cellular Roaming, Message Waiting, and various versions of IN. Many TT values have been assigned independently by each LEC. In some cases the same LEC has used different values for the same application in different STPs within their network. Some IN platforms require that multiple TTs be assigned to differentiate IN services.

AT&T's proposal to assign a TT value to each third party provider must be considered carefully in light of this limitation. Will a third party provider require more than one TT if they desire that queries to be routed to multiple SCP platforms? Will different services require separate TT values? GTE suggests that before TT values are assigned to third party IN providers an industry project is necessary to determine how third party messages will be routed in a consistent and standard basis by all LECs. Although assigning TT values to each third party IN provider helps to prevent ACG controls from one provider causing other providers' calls from being affected, other alternatives must also be considered. One alternative would be provided via a mediation function. The industry only has to look at the quantity of Carrier Codes currently assigned. This far exceeds 256 today. It is conceivable that every existing carrier with a CIC may be interested in offering IN services. Similar to the significant costs necessary to expand CIC codes from (3) to (4) digits, the costs to expand beyond 256 TT values will be significant.

Page 3, GTE's Identified Harm No. 4

GTE's Statement:

"These existing Gateway STP mediation functions do not provide any level of screening related to IN messages once advanced IN translations types or subsystem numbers are allowed."

AT&T's Characterization of GTE's Statement:

"Currently, the SS7 messages passed between LECs and IXCs are being screened. For example the switch can check for such conditions a response timer expiration, unexpected messages, unexpected message sequences, unexpected parameter sequences, erroneous date values, missing parameters, invalid AMA parameters, query failures, carrier type mismatches and many others. The SCP can detect and report errors as well,. Errors detected by an SCP include subscriber records not found subscriber data inconsistency, IN application errors, SSP communication failures and outgoing TCAP message failure The STP has the capability to perform error detection at the link level (e.g., to detect transmission errors), basic error connection at the line level through retransmission, signaling traffic management to divert traffic from congested areas, signaling link management to restore failed links, signaling route management to convey network status, notification of subsystem failure through Subsystem-Prohibited messages, and transmittal of Subsystem-Out-of-Service Request to allow a subsystem to go out of service without degrading network performance.

GTE's Response:

GTE agrees with AT&T's overall description of functions performed at the SSP, SCP and STP network elements relative to processing IN messages. From an STP perspective, these are general functions performed for all SS7 messages independent of IN.

From a switch (SSP) perspective, most of the functions identified by AT&T are basic IN message handling processes that validate response messages received from an SCP. These are basic validation functions that assure that the message is properly formatted, that mandatory elements are present and erroneous data has not been received. The SSP does not check for "invalid AMA parameters", "carrier type mismatches", and "many others" as stated by AT&T. GTE does not understand what AT&T means by "invalid AMA parameters" for "carrier type mismatches". The SSP does not know if an IN AMA record is to be created for the call. If a Carrier Code is received that is different from the PIC'd carrier, the switch will accept the SCP returned Carrier Code without any screening.

Most of the functions described by AT&T are basic certification checks that are necessary to allow any third party to interconnect with GTE's signaling network independent of IN message handling. They do not provide any screening for AIN messages or parameters.

Page 3, GTE's Identified Harm No. 5

GTE's Statement:

In a pre-AIN environment all messages types and parameters are explicitly defined within the switching points with interactions as well defined. In an AIN environment, generic capabilities are introduced which require a new level of mediation.

AT&T's Characterization of GTE's Statement:

In the post-IN environment, all message types and parameters are defined within the switching points as well. If an unrecognized message type or parameter is received the switch will not process it. Therefore, application screening does exist at an SSP and SCP. Refer to item 4.

GTE's Response:

AT&T has taken GTE's comment out of context for which is was intended. GTE agrees that if an SCP returns undefined and unsupported AIN message types or parameters to the SSP, then the messages will be either discarded or depending upon the circumstances abort the call attempt and route to final treatment. In the case of AT&T's comment that "application screening does exist at an SSP and SCP" GTE agrees that if an SSP or SCP received either a query or response message with a Subsystem Number (SSN) of an application not supported on the platform, the message will be discarded or result in returning a reject or error message to the originator. The SSP resulting action will be to abort the call attempt and route the caller to final treatment (usually 120 IPM).

An example of the intent of GTE's original statement is as follows. In the case of the database 800 application, the Calling Party Number is sent to the 800 database along with the 800 number dialed. The response message can return the original 800 number as dialed and the Carrier Code to which the call is to be routed or a translated POTS number and Carrier Code to which the call is to be routed. The Calling Party Number cannot be returned or changed. As one of GTE example indicates, in an IN environment, not only can a destination address number be returned by a different Calling Party Number or changed Privacy indicator can be returned. In the case of the database 800 application exact messages and parameter contents must be returned. In the IN, many different parameters can optionally be returned with minimal content screening other than protocol supported values.

Page 3, GTE's Identified Harm No. 6

GTE's Statement:

"example, illustrate the undesirable interactions that could occur..interactions between switch-based CLASS services and AIN third party access must be resolved.
If the SCP service Logic returns a different CPN than received from the original caller and the call subsequently is terminated to a CLASS consumer who subscribes to Automatic Recall (AR) and who has this feature activated, the network would attempt to return the call to the wrong caller.

Even if the CPN number is not changed, there is the opportunity to modify the Privacy indicator associated with the CPN number. The third party IN service could change the call originators CPN Privacy indicator from Private to Presentation Allowed".

AT&T's Characterization of GTE's Statement:

"The switch overwrite the existing Calling Party ID with the new one it receives in a response message from the SCP. The new Calling Party ID is used in signaling, but is not used in creating any SSP AMA records. Although the switch could be developed to screen on Calling Party ID or other changed parameters, it receives from an SCP, such development would counter the intent of the AIN parameters it receives from an SCP, such development would counter the intent of the AIN specification and call model by placing service control logic back in a switch. Rigorous testing and robust provisioning processes are the appropriate means to address the issue. See discussion on feature interactions in item 2.

Privacy could potentially be modified by an SCP. It could also be modified by switches in ISUP signaling, which conveys a privacy indicator and CPN. the overriding point in the case of privacy changes is that FCC rules (para. 64.1601) indicate that no common carrier subscribing to or offering any service that delivers calling party number may override the privacy indicator associated with an interstate call."

GTE's Response:

Continued on next page

AT&T has attempted to avoid the basic issue defined by GTE. Independent of FCC rules, even non intentional mistakes by any third party service creator could negatively impact the Calling Party ID or privacy indicator. The FCC has rules against PIC slamming which has not prevented the practice from occurring.

AT&T's position is that "rigorous testing and robust provisioning processes are the appropriate means to address the issue". GTE has no idea how testing or provisioning processes will solve this issue since it will occur in real time during call processing. In addition, if hypothetically a third party and LEC perform extensive service testing before the third party deploys the service, and verifies that under the conditions tested that the CPN is not changed, there could be call scenarios not tested that change the CPN. In addition, as experienced by GTE with initial IN service test, if a customer requests a modification of their service, the change can be made in a matter of minutes. Because of this change, will it be necessary for the third party and GTE to execute extensive retesting? How would GTE even know what changes have been made? Testing and provisioning processes will not solve this issue.

AT&T's statement that the CPN privacy "could also be modified by switches ..." is irrelevant and inaccurate. The only situation today where a switch modifies the CPN privacy status is when the originating caller explicitly enters either *67 or *82 privacy toggle code to change their default privacy indicator. The caller is the only party that has control of the CPN privacy indicator. An IN service provider should not be able to control this parameter.

Page 4, GTE's Identified Harm No. 7
GTE's Statement:
"If multiple AIN service providers have access to the SSP triggers and if one of the third party's SCP's were to go into an overload condition and activate ACT controls, the control is applied to the entire SSP office. All AIN service providers services are impacted.
AT&T's Characterization of GTE's Statement:
When all third party SCP providers share the same TT, an ACG control may affect other SCPs. An ACG control uses the TT and the first 6 digits of the GTA to control the number of messages sent from the SSP to the SCP. If a single TT is used, any GTA with the same first 6 digits will be affected. If one TT is assigned to each third party SCP provider, this is not an issue since each TT will be unique, allowing independent controls for each SCP provider. Additional controls exist with the SCP overload Control SOC and the SMS Originated Code Controls (SOCC) allowing a work center to manually or automatically adapt the ACG controls depending upon the query processing time. SSN and other parameters (e.g. impose 10 digit controls).
GTE's Response:
Based upon the current design of AIN ACG controls, AT&T is correct in their assessment that in order to avoid one third party's SCP in overload condition from affecting IN service providers subscribers, separate TT must be assigned per IN third party service provider. Refer to GTE's comments to Identified Harm # 3 preceding for an explanation of the issues related to assignment of TT per provider. AT&T's comment relative to additional controls that can be initiated via SOCC does not affect GTE's stated issue in any way. It only provides another method to force an SCP to return ACG controls to the SSP. The ACG issue at the SSP remains if multiple service providers are served by the same SSP.

Page 4, GTE's Identified Harm No. 8
GTE's Statement:
"the third party SCP can control the trigger activation/ deactivation for any subscriber trigger in the SSP in dependent of the service provider assigned the trigger. If multiple third parties have trigger access, one third party could activate/deactivate the triggers associated with another third party's service.
AT&T's Characterization of GTE's Statement:
Triggers are provisioned by the LEC at the switch. A third party IN service provider would send a service under request to a LEC. and the LEC would in turn provision the triggers on the customer's line at the switch on behalf of the third party service provider. Since SSP queries will be segregated amongst SCP providers by TT and queries and responses are precisely correlated via transaction identifiers, an SCP provider will only be able to activate/deactivate triggers on lines subscribed to it. Since the AIN specification does not currently allow for the SCP to send autonomous messages to the SSP, SCP provider could only activate/deactivate a trigger on lines that already have some trigger provisioned (by the LEC) such that queries are being sent to their SCP.
GTE's Response:

AT&T's response alludes to the fact that if a separate TT value is assigned per third party IN provider, then that provider can only activate/deactivate triggers associated their assigned customers. This statement is incorrect. AT&T also states that an SCP cannot send "autonomous messages to the SSP". GTE interprets this statement to mean that an SCP cannot launch a query to the SSP requesting trigger activation as a stand along request. AT&T response indicates that the third party's SCP can only request a SSP to activate/deactivate triggers in a normal response message to an SSP originated query. This is also incorrect. An SCP can initiate a query message to the SSP requesting trigger activation/deactivation.

In order for an SCP to control the activation/deactivation status of a trigger, the trigger must first be provisioned on a subscriber line. The trigger assignment will occur during the trigger provisioning process. Once the trigger is provisioned, the SCP, via generic IN capabilities, can activate or deactivate the trigger on a real time basis.

Even if a separate TT value is assigned per third party IN service provider, a third party will still have the ability to control any subscribers triggers provisioned within the SSP. The TT is only used to route the query launched from the SSP to the correct SCP. The IN application (*i.e.*, AIN 0.1) of the SSP that launched the query assigns a Subsystem Number (SSN). This SSN is the same for all AIN 0.1 queries originated by the switch independent of the TT value assigned to the trigger criteria. All response messages from all SCPs will echo this value back to the SSP that launched the query. The SCP does not utilize this value for IN service processing. It is merely used in the response message to identify the application processing required back to the sending SSP. (Reference GTE's Identified Harm # 3)

Based upon the current design of AIN ACG controls, AT&T is correct in their assessment that in order to avoid one third party's SCP in overload condition from affecting other IN service providers' subscribers, separate TT must be assigned per IN third party service provider. Refer to GTE's comments to Identified Harm # 3 preceding for an explanation of the issues related to assignment of TT per provider.

AT&T's comment relative to additional controls that can be initiated via SOCC does not affect the GTE issue in any way. It only provides another method to force an SCP to return ACG controls to the SSP. The ACG issue at the SSP remains if multiple service providers are served by the same SSP.

Page 4, GTE's Identified Harm No. 9

GTE's Statement:

There are major billing related issues that must be addressed...In addition, the AIN service can control the Charge Number used for billing purposes equivalent to ANI in an Non-AIN/SS7 environment. With third party AIN access, the third party has direct control of the Charge Number.

AT&T's Characterization of GTE's Statement:

The SCP can potentially change the Charge Number. The flexibility exists in IN to allow the creation and offering of billing number services to customers. For example, a selective collect call acceptance service would allow a subscriber to choose the callers from whom to accept calls. The switch overwrite the existing Charge Number for the call with the value it receives from the SCP in a response message. The new Charge Number is used in signaling but is not used in creating any SSP AMA records. ISUP signaling, used to signal between switches today, also conveys Charge Number information which switches along the way could potentially change.

GTE's Response:

GTE's original comments state that the third party can control the Charge Number. AT&T 's statement that the SCP can "potentially" change this parameter should actually read "can change". Contrary to AT&T's comments the Charge Number is "used" to create SSP AMA billing records. In fact, that is the only purpose for this parameter. This parameter is used by IXCs to bill calls in their network. The billing of IXCs will be impacted if an incorrect or invalid Charge Number were sent to them.

The Charge Number issue was identified by GTE as an example of a billing issue. From GTE's perspective, billing related issues are much more complex and serious than just dealing with the Charge Number parameter. The issues impact how GTE will create billing records to bill third parties for their access to its IN capabilities. These records must either be recorded at the SSP or as a mediation function.

Page 4, Bell Atlantic's Identified Harm No. 10
Bell Atlantic's Statement:
Bell Atlantic demonstrated that AT&T's allegation that mediation is unnecessary is incorrect by citing a report of US Government's National Communications Systems.
AT&T's Characterization of Bell Atlantic's Statement:
The report is a recommendation by the Office of the Manager, National Communications Systems assessing that there is a security risk therefore OMNCS should essentially become a third-party provider by owning its own SCPs and have "tighter control over its physical security environment and greater control over the design and construction of the SCP." AT&T Ex Parte 4/10/96
Bell Atlantic's Response:
Bell Atlantic demonstrated that independent governmental agency experts recognize and acknowledge the same security concerns that Bell Atlantic has voiced in its Ex Parte filings. AT&T trivializes the security concerns of this report by drawing attention to the conclusion of the report that OMNCS should own its SCPs so it can have better control over its destiny. The industry would be better served if it focused on the analysis' conclusions that there are major security concerns and "[adding] third-party SCPs to the network has the potential to open up the network to a host of new security problems that will directly affect the integrity of the network." Bell Atlantic Ex Parte 10/27/95

Page 4. Bell Atlantic's Identified Harm No. 11

Bell Atlantic's Statement:

AT&T's claim that only minimal mediation functions are required to provide third-party access to AIN trivializes the complexities required to implement multiple service providers' access to AIN.

AT&T's Characterization of Bell Atlantic's Statement:

AT&T acknowledges that STPs lack sufficient security screening for secure management of TCAP messages. However, AT&T suggests that SSP and SCP error procedures are sufficient to provide robust mediation capabilities using existing deployed technology.

Bell Atlantic's Response:

Bell Atlantic is aware of instances of unauthorized access to local and long distance networks across the SS7 network, resulting in the unauthorized gathering of credit card and security information. Therefore, AT&T's characterization that existing network element mediation function sufficiency is not correct.

AT&T does acknowledge that STPs alone cannot provide the TCAP screening nor provide the necessary security. Bell Atlantic and the Commission must conclude that AT&T now realizes and acknowledges that network security at a gateway STPs are insufficient to protect the networks, especially at the "command and control" message level for multiple providers, or the incumbent LEC interconnection without mediation. This is a good first step. Besides, it is highly unlikely (and unwise) that a third party service provider interconnect AIN networks without securely protecting its network.

The next step is to investigate what is necessary to assure the security of network providers . This can best be accomplished through the IN Project proposed by the Joint LECs. Through participation in the IN Project AT&T can discover, first hand, the potential risk to its network by minimizing security, as well as assisting in determining the appropriate levels of security necessary to protect all providers' networks.

Page 5. Bell Atlantic's Identified Harm No. 12
Bell Atlantic's Statement:
"Security, feature interaction management and provisioning system development required to facilitate q save and effective access system for a software driven network, which includes AIN, is a major undertaking."
AT&T's Characterization of Bell Atlantic's Statement:
Bell South proposes, in its Part 69 waiver request, that "trigger interaction difficulties, including those involving current service offerings, will be addressed during the feature provisioning process."
Bell Atlantic's Response:
It is good for AT&T to recognize the efforts of an incumbent LEC to seek new market opportunities, albeit with a proprietary SMS mediated access implementation. It is appropriate for the Commission to recognize that this proprietary SMS mediated access implementation does not equate to the free reign over the signaling network for AIN massaging and trigger access that AT&T has proposed. Neither does it intimate that all incumbent LECs implement the same hardware/software systems. SMS mediated access must be groomed to operate with the incumbent LECs network, the operational support systems and the business processes, which differ from LEC to LEC.

Page 5, Bell Atlantic's Identified Harm No. 13

Bell Atlantic's Statement:

Certification can be effective only for non-real time mediation, however, real time mediation is also required for AIN security and reliability safeguards.

AT&T's Characterization of Bell Atlantic's Statement:

The identification of additional real time mediation, over and beyond that already in place in IN networks elements has not been defined.

Bell Atlantic's Response:

AT&T is incorrect. The Information Industry Liaison Committee (IILC) has a task group managing issue 052; "*Definition and criteria for Placement of Logical Interconnection Mediation Functions*" as one of its items. It is appropriate to observe that the work of this group is nearing finalization. Issue 052 has the following as its issue statement:

"Some parties have recognized the need for mediation in an environment of logical interconnection with intelligent network capabilities or platforms, by multiple providers. An industry view is needed of what constitutes mediation and what are the appropriate criteria for determining where and/or how it should be accomplished."

Bell Atlantic observes that this issue team has AT&T's representative as its co-champion.

Additionally, The Network Reliability Council, Reliability Issues--Changing Technologies Focus Group's *Advanced Intelligent Network Subteam Final Report* identified mediation functions or mediated access. Bell Atlantic also notes that AT&T has chosen to ignore the myriad of Ex Parte filings over the past several years that have identified network security, reliability, feature interaction issues as well as the concern for proprietary of information of all service providers accessing the same network elements. As Bell Atlantic noted in its response to Identified Harm #11, the IN Project will facilitate identification of needed mediation functions.